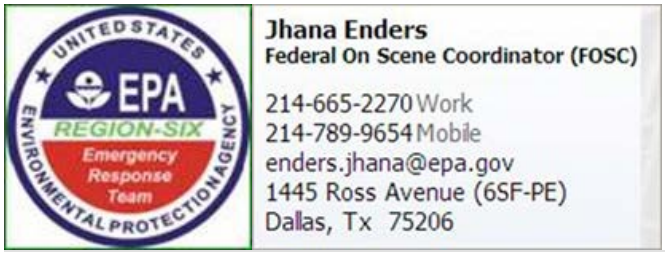
REDACTED VERSION

From: Enders, Jhana
To: Ruhl, Christopher
Cc: Turner, Philip; Young, Patrick
Subject: FW: Sampling Discussion (City of Amarillo)
Date: Thursday, April 6, 2017 10:16:32 AM
Attachments: image002.png

FYI…I can answer the questions but probably need to discuss to be sure we are on the same page. Many of the questions were discussed and answered in UC however, not sure Shaun May passed on all the info to Dr. Martin. Also, some are odd as Dr. Martin made the criteria which had to be met before air sampling could occur…



From: Martin, Thomas [mailto:thomas.martin@ttuhsc.edu]
Sent: Thursday, April 06, 2017 12:33 AM
To: Bojes,Heidi (DSHS)
Cc: Hall,Emily (DSHS) ; Nogueira,Leticia M (DSHS) ; May, Shaun ; Enders, Jhana
Subject: RE: Sampling Discussion (City of Amarillo)

I am presenting a webinar for the EPA/ATSDR's Pediatric Environmental Health Specialty Unit (PEHSU) network on 4/19/17. Here are some question that I anticipate:
Why was air sampling delayed until 1/28/17. (in UC IAP statement and have email from Dr. Martin with criteria
Did HazMat team measure PH3, once it was identified as the suspected toxin?
What method did HazMat team use to try to detect PH3?
What is the current status of the house? Can it be reoccupied or sold?
Did the father ever identify the source of the AIP?
I am sure that there will be other questions as my draft talk gets reviewed.
Thanks

Thomas G. Martin, MD, MPH, FACMT, FAACT, FACEP

Medical Director

Texas Panhandle Poison Center

Texas Tech University Health Sciences Center

1300 S. Coulter, #105

Amarillo, TX 79106

Office 806 414-9749

From: Bojes,Heidi (DSHS) [Heidi.Bojes@dshs.texas.gov]
Sent: Saturday, April 01, 2017 9:45 AM
To: Martin, Thomas
Cc: Hall,Emily (DSHS); Nogueira,Leticia M (DSHS)

Subject: RE: Sampling Discussion (City of Amarillo)

Dr. Martin,
EPA's reference concentration (RfC) for phosphine is 0.0002 ppm (0.0003 mg/m3).
It is an estimate (with uncertainty spanning perhaps an order of magnitude) of a continuous inhalation exposure to the human population (including sensitive subgroups) that is likely to be without appreciable risk of deleterious noncancer effects during a lifetime.
As I mentioned below, EPA's RfC is based on a laboratory study conducted in mice that were exposed to various levels of phosphine gas over a 13 week period (Barbosa et al, 1994). A lowest observed-adverse-effect-level (LOAEL) of 4.5 ppm and a no-observed-adverse-effect-level (NOAEL) of 1 ppm were designated based on decreases in body weight in female rates.
The levels detected in the home are below the LOAEL and NOAEL.
Attached is a table of the sampling results and comparison levels.
Please call me if you have additional questions.
-Heidi

Heidi Bojes, PhD, MPH
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Texas Department of State Health Services
Direct: (512) 776-6351
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From: Martin, Thomas [mailto:thomas.martin@ttuhsc.edu]
Sent: Friday, March 31, 2017 3:58 PM
To: Bojes,Heidi (DSHS) <Heidi.Bojes@dshs.texas.gov>
Subject: RE: Sampling Discussion (City of Amarillo)

Heidi,
What was the EPA's RfC for phosphine?
What does RfC stand for?

Thomas G. Martin, MD, MPH, FACMT, FAACT, FACEP

Medical Director

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From: Bojes,Heidi (DSHS) [Heidi.Bojes@dshs.state.tx.us]
Sent: Monday, February 20, 2017 12:56 PM

To: Young, Patrick; May, Shaun; Milton, S; Martin, Thomas; Turner, Philip
Cc: Pettigrew, George
Subject: RE: Sampling Discussion (City of Amarillo)

Thanks Patrick for the useful document.
I compared the concentrations detected in the home to occupational and residential comparison levels (see attached document). While all air samples collected in the home were below occupational levels, they exceed the long-term residential comparison level. Also, the reporting level (which is the lowest quantifiable level) of 0.016 ppm is above the residential comparison value for long-term exposure.
Laboratory methods with reporting limits below the residential comparison level have not been established.
EPA's RfC is based on a laboratory study conducted in mice that were exposed to various levels of phosphine gas over a 13 week period (Barbosa et al, 1994). A lowest observed-adverse-effect-level (LOAEL) of 4.5 ppm and a no-observed-adverse-effect-level (NOAEL) of 1 ppm were designated based on decreases in body weight in female rates. The levels detected in the home are below the LOAEL and NOAEL.
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I also spoke with Dennis Keith (bureau manager of emergency response and waste management with Davis County Health Department in Utah) last week. He was the incident commander for the phosphine gas incident in Salt Lake City in February 2010. The situation in Utah was similar to the Texas one in that pesticide (Fumitoxin – containing 55% aluminum phosphide) was placed under a back-filled porch and phosphine gas was released into a home.
Remediation conducted in the home included removal of the pesticide pellets and thoroughly ventilating the home using fans, which they set up to blow air out of the home. After day or two of ventilation, gas monitors (dragger tubes with a PID) were used to evaluate phosphine gas. Base on the lack of phosphine gas detected in the home and the fact that the pesticide was removed, the home was determined to be habitable. They did not collect any confirmation samples.

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From: Young, Patrick [mailto:young.patrick@epa.gov]
Sent: Thursday, February 16, 2017 7:16 AM
To: May, Shaun <Shaun.May@amarillo.gov>; 'Milton, S' <s.milton@ttuhsc.edu>; Bojes,Heidi (DSHS) <Heidi.Bojes@dshs.state.tx.us>; 'Martin, Thomas' <thomas.martin@ttuhsc.edu>; Turner, Philip <Turner.Philip@epa.gov>

Cc: Pettigrew, George <pettigrew.george@epa.gov>
Subject: RE: Sampling Discussion (City of Amarillo)
Okay everyone!! I finally found the clarity that I was seeking that should better explain what we are dealing with as far as indoor air exposures to the public based on occupational values we have derived. EPA put together an extremely useful visual aid that lumps in occupational, acute, short term, subchronic, chronic and general public exposures all in one visual aid. On the viewer its page 177; the document page is 170 for Phosphine. Hopefully this will help assist in making the health call on when it is safe to reoccupy the residence.
CAPT Patrick Young, RS, MS
U.S. Public Health Service
ATSDR R6 Regional Rep
Division of Community Health Investigation
Dallas, Texas
214-665-8562 (o)
-----Original Appointment-----
From: May, Shaun [mailto:Shaun.May@amarillo.gov]
Sent: Friday, February 10, 2017 3:42 PM
To: May, Shaun; 'Milton, S'; Bojes,Heidi (DSHS); Young, Patrick; 'Martin, Thomas'; Turner, Philip
Subject: Tentative hold for Final Sampling Discussion (City of Amarillo)
When: Wednesday, February 15, 2017 3:00 PM-4:00 PM (UTC-06:00) Central Time (US & Canada).
Where: Conf Call - Call-in Number (b) (6) Access Number (b) (6)
When: Wednesday, February 15, 2017 3:00 PM-4:00 PM (UTC-06:00) Central Time (US & Canada).
Where: Conf Call - Call-in Number (b) (6) Access Number (b) (6)
Note: The GMT offset above does not reflect daylight saving time adjustments.
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Discussion about final sampling results

Please note My email address has changed to reflect @dshs.texas.gov domain. Please be sure to update your contact information with the new address.